

Plants Spread by the Silvereye

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A few years ago I was experimenting with the growing of native plants, and to that end I procured soil and leaf mould from the habitat of the plants. It was placed in boxes which were raised a foot above the garden soil, and the boxes were then placed under a large apple tree. Some success was achieved but what surprised me was the large number of cultivated garden trees and shrubs that made their appearance in the boxes. A little thought on the matter made me suspect that such was due to Silvereyes dropping seeds from the apple tree. Since that time I have made a number of observations which confirm my suspicions. My garden is of the average Sydney suburban "pocket-handkerchief" type—about 50 feet by 150 feet. In it are crammed fruit trees, flowering shrubs and a lawn—there is also a large eucalypt growing at the rear. Birds of the open forest type, varying from the Kookaburra to Pardalotes, as well as those which frequent the garden proper, often perch in this last-mentioned tree. The constant visitors include Sparrows and Silvereyes in numbers, and a few Starlings, Doves, "Peewees," and Spinebilled Honeyeaters. Occasionally Bul-buls appear but they are very infrequent visitors.

Two or three native flowering shrubs are frequented by the Silvereye, the Spinebill, and the ubiquitous Sparrow. Under these shrubs I also found many garden plants springing up from seeds. Out of the three birds enumerated it would appear almost certain that the Silvereye must be the one that drops the seeds, particularly as it is known that most of the plants which spring up are those from which the Silvereye eats berries, fruits and seeds. There are, however, one or two observations that tend to show that the Sparrow may possibly spread a few of the plants. With those I will deal later.

A list of plants identified during the past two or three years follows. Vernacular names are used where possible, as they will be more readily recognized by the majority of readers.

Sweet Pittosporum (*Pittosporum undulatum*).—This plant is the most numerous of all, and is constantly springing up under fruit trees. Most of the seeds do not appear to have passed through the birds, for they may be seen scattered loosely over hessian covers, which, at times, I place over boxes containing seedlings. These seeds are very sticky, and the birds, in wiping their bills on small branches, no doubt deposit a lot of them on to the soil below.

Camphor Laurel.—I identified about half a dozen of these trees growing under the apple tree.

Pepper-tree (*Schinus molle*).—Three of these trees were found growing under the eucalypt tree.

Privet.—The common small variety used extensively as a hedge plant is numerous, while the larger variety is not so common.

Native Poplar or "Native Bleeding Heart."—A small softwood tree with fairly large heart-shaped leaves which turn a reddish colour before they drop off. These are very common.

Cassias.—These are very common and I believe belong to more than one species, although I have never proved it. This is an instance where I think it possible that the Sparrow distributes the seeds, as I generally find these plants beside fences and in the more open spaces. The seeds are very hard and I deduce, perhaps incorrectly, that the Sparrow, after carrying them off and finding that its bill will not break them, just drops the seeds wherever it happens to be.

Mistletoe (*Loranthus*).—One plant grew on a lemon tree. I do not doubt that the Silvereye was responsible as I have watched those birds feeding on mistletoe berries.

Honeysuckle.—The well-known sweet-smelling flower. The seeds are contained in a small black berry. I have found a few of these plants.

Virginia Creeper.—One of these plants is growing up the apple tree. Its seeds are also contained in a small black berry. It is noticeable that many of the plants found belong to those which produce small black berries.

Ochna Bush.—One plant.

Blackberry.—It might be expected that many of these plants would be in evidence, especially as they grow not more than fifty yards away. I have, however, only positively identified one plant, which sprang up under the gum tree. Two other young plants that appeared to be blackberries were accidentally destroyed.

Lantana.—This is another plant of which it might be expected that numerous specimens would appear. I have not, however, found more than about half a dozen.

Ink-berry.—Very numerous.

Asparagus.—Two species, one having fine, fern-like leaves, and the other having larger leaves. The former is very common while I have only found two plants of the latter.

Bidens fulesa.—Commonly called "Stick Fast." It is a small weed with a daisy-like flower. I am not certain that the Silvereye spreads this weed, although I am inclined to think that it does as I have seen it feeding on the flower heads.

Sunflower.—Two varieties, one large and one small—one plant of each. This is another instance where, I think, the

Sparrow is responsible, for the same reasons as that given for the Cassias.

Loquat Tree.—Two plants growing. This fruit is never eaten at my place, so the human element as a dispersing factor can be struck out.

Besides the above list there are a few plants that have not as yet been positively identified, and a few others that may have been due to some one of us accidentally planting them.

The above list of plants is, no doubt, represented in practically every suburban garden around Sydney at least, even though the seeds, through constant cultivation, are hardly given time to germinate. As the Silvereye must be responsible for distributing plants over a wide area, the question arises in one's mind as to what effect the dispersal of these plants has on the surrounding bush-lands. My observations are that in the virgin bush-lands they have little influence, and it is uncommon to find any of the garden-cultivated species or pests such as the lantana and blackberry growing, but wherever there has been disturbance of the soil, or destruction of the native trees and shrubs, either directly or indirectly by man and his domestic animals, then there may be seen many instances of these plants gaining a strong hold, especially on the banks of small creeks near residences.

In the *Science Bulletin*, No. 15, of July, 1918, published by the Department of Agriculture of New South Wales, is an article on the food of Australian birds. The following seeds were identified in the stomach contents of the Silvereye:—Blackberries, Ink-berries, *Rubus* sp.? (native raspberry), Pepper-tree berries, *Persoonia* sp.? (geebung) *Eriocarpus*, *Leucopogon*, *Phytolacca octandra*, *Solanum nigrum*, native cherry, fruit (probably figs), and many other seeds not identified.

Kestrel Notes.—This nesting season I have found several nests of the Nankeen Kestrel in the Red Cliffs district, Victoria. This beautiful Hawk is remarkably tame, and presents no difficulties for the photographer, beyond the labour of building a scaffolding to hold camera and operator. The nesting hollow shewn in the illustration was about twenty feet from the ground and to reach it several mallee saplings were felled and lashed together in the form of a tripod. The camera was secured at the top with a kodapod and a ladder was used by the photographer. The Kestrel is a valuable bird and should be protected by law* and sentiment. Mice and grasshoppers form a large portion of its diet. It is regrettable that there is so much ignorance about our Hawks amongst the general public.—L. G. CHANDLER, Red Cliffs, Victoria, 21/1/36.

* The species was placed on the fully-protected list in Victoria last year (1935).—Ed.